

October 16, 2001



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To: Commissioner of Patents and Trademarks

Washington, D.C. 20231

Attn: Art Unit 2813 - A. Sarkar

From: George O. Saile, Reg. No. 19,572

20 McIntosh Drive

Poughkeepsie, N. Y., 12603

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JUN 14 2002  
TECHNOLOGY CENTER 2800

Subject: | Serial No.: 09/587,465 06/05/00 |

Jing-Cheng Lin

METHOD OF IMPROVED BARRIER  
PERFORMANCE

| \_ Art Group: 2813 A. Sarkar \_ |

RESPONSE TO RESTRICTION REQUIREMENT

This is in response to the Restriction or Election Requirement in the Office Action dated 10/01/01. In that Office Action, restriction was required to one of two stated

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on October 22, 2001.

Stephen B. Ackerman, Reg.# 37761

Signature/Date

Saile 10/22/01

Inventions under 35 U.S.C. 121. The Inventions stated are Group I - Claims 1-26 to a process, classified in Class 438, subclass 643 and Group II - Claims 27-36 to a diffusion barrier structure, classified in Class 257, subclass 758+.

Applicant provisionally elects to be examined the Invention described by the Examiner as Group I - Claims 1-26 drawn to a process classified in Class 438, subclass 643. This election is made with traverse of the requirement under 37 C.F.R.1.143 for the reasons given in the following paragraphs.

The Examiner is respectfully requested to reconsider the Requirement for Restriction given in the Office Action. The Examiner gives the reason for the distinctness of the two inventions as (1) that the process as claimed can be used to make other and materially different products or (2) that the product as claimed can be made by another and materially different process (MPEP 806.05(f)). However, upon reading the product Claims against the process Claims one can readily see that the product Claims are directed to "a diffusion barrier structure formed in the fabrication of an integrated circuit" and the process Claims are directed to "a method of preventing copper diffusion in the fabrication of an integrated circuit by means of a composite diffusion barrier layer", it is necessary to obtain claims in both the product and method claim language. The method Claims necessarily use the product and vice versa. The field of search must necessarily cover both

the method class/subclass 438/643 and products class 257/758+ in addition to other related Classes and subclasses to provide a complete and adequate search. The fields of search for the Group I and Group II inventions are clearly and necessarily co-extensive. The Examiner's suggestion that "In the instant case, the product of Group II as claimed can be made by another and materially different process such as depositing the barrier layers by sol-gel technique instead of vapor deposition process", is very speculative and really has nothing to do with the Claims as presented in this Patent Application. Further, it is respectfully suggested that these reasons are insufficient to place the additional cost of a second Patent Application upon the Applicants. Therefore, it is respectfully requested that the Examiner withdraw this restriction requirement for these reasons.

Withdrawal of the Restriction Requirement and the Allowance of the present Patent Application is requested.

Sincerely,



Stephen B. Ackerman, Reg.# 37761